

CLAIM AMENDMENTS

Claims 1-10 (Canceled)

11. (Currently Amended) A device for ablating tissue comprising:

a guide element;

a rigid elongate tubular member defining a longitudinally extending lumen having a distal opening and a proximal opening, the lumen dimensioned to pass along and over the guide element directed into the tissue, a distal portion of the tubular member having a blunt distal tip, the tubular member comprising a metal tube having an external surface and an electrical insulator configured to electrically insulate a portion of the external surface of the metal tube, the blunt tip comprising a fluid sealed junction between the metal tube and the inner metal tube;

an electrode disposed at a distal portion of the tubular member and configured to be energized with high frequency energy to thermally ablate the tissue; the electrode comprising an exposed portion of the external surface of the outer metal tube;

an inner metal tube disposed within the metal tube and defining a portion of the lumen;

and

a fluid channel within the tubular member, the fluid channel in fluid communication with a fluid input port and a fluid output port and in thermal communication with the electrode; the fluid channel being located at least in part between the metal tube and the inner metal tube.

12. (Canceled)

13. (Original) The device of claim 11, wherein:

the tubular member comprises a plastic tube; and

the electrode comprises a metal element.

Claims 14-16. (Canceled)

17. (Currently Amended) A system for ablation of tissue in the living body comprising:

a guide element; and

an ablation system including:

an elongate member defining a longitudinal channel having a distal opening and proximal opening, the elongate member being dimensioned to slide along and over the guide element directed into the tissue, a distal portion of the elongate member having a blunt distal tip, the elongate member comprising a metal tube having an external surface and an electrical insulator configured to electrically insulate a portion of the external surface of the metal tube, and the blunt tip comprising a fluid sealed junction between the metal tube and the inner metal tube; and

an electrode at a distal portion of the elongate member and configured to be energized with high frequency energy to ablate the tissue; the electrode comprising an exposed portion of the external surface of the outer metal tube;

an inner metal tube disposed within the metal tube and defining a portion of the channel;
and

a fluid channel within the elongate member, the fluid channel in fluid communication with a fluid input port and a fluid output port and in thermal communication with the electrode; the fluid channel being located at least in part between the metal tube and the inner metal tube.

18. (Canceled)

19. (Original) The system of claim 17 wherein the guide element comprises a flexible guide wire.

20. (Original) The system of claim 17 wherein the guide element comprises a rigid stylet wire.

21. (Original) The system of claim 17 wherein the guide element comprises an anchor that extends laterally from a distal guide portion of the guide element, the anchor configured to anchor the distal guide portion near a target.

22. (Original) The system of claim 17 wherein the guide element comprises a tube containing a movable member.

23. (Original) The system of claim 22 wherein the movable member is a tube.

24. (Original) The system of claim 22 wherein the movable member is an anchor.

25. (Original) The system of claim 17 wherein the ablation system further comprises:
a high frequency generator; and
electrical conductors connecting the high frequency generator to the electrode.

26. (Currently Amended) The system of claim 17 wherein:
~~the elongate member defines a fluid channel in fluid communication with a fluid input~~
~~and a fluid outlet and in thermal communication with the electrode; and~~
the ablation system further comprises a coolant supply connected to the fluid input.

27. (Original) The system of claim 17 wherein the ablation system further comprises a fluid agent injector.

28. (Currently Amended) A method for thermal ablation of a target volume comprising:
perforating and penetrating a living body using a guide element to establish a tract through the body to the target volume by at least passing a sharp needle through skin and tissue;
sliding an electrode along and over the guide element directed into the body to position the electrode near the target volume, the electrode including an elongate member defining a longitudinal passage dimensioned to pass along the guide wire, a conductive surface at a distal portion of the elongate member, and an electrical connection between the conductive surface and a proximal portion of the elongate member, by at least passing the guide wire through the needle and removing the needle over the guide wire to leave the guide wire in the tract;
connecting the electrical connection to a high frequency generator;
supplying high frequency energy from the generator through the electrode to the target volume to thermally ablate the target volume.

29. (Original) The method of claim 28 further comprising cooling the electrode while supplying high frequency energy to change a spatial distribution of heat near the electrode, cooling including connecting a source of a coolant to a fluid input and causing a coolant to flow in a fluid channel in the elongate member, the fluid channel being in fluid communication with the fluid input and a fluid output and in thermal communication with the electrode.

30. (Canceled)

31. (Original) The method of claim 28 wherein positioning comprises deploying an anchor from the guide wire to anchor the guide wire in the tract.

32. (Original) The method of claim 28 further including dilating the tissue along the tract after positioning the guide wire by passing a dilating element over the guide wire to expand the tissue along the tract prior to sliding the electrode along the guide wire.

33. (Original) The method of claim 28 further comprising introducing a fluid agent through the guide element.

34. (Original) The method of claim 28 further comprising introducing a chemotherapeutic agent through the guide element prior to or while supplying high frequency energy.

35. (Currently Amended) The ~~device~~ system of claim 3 17, wherein the fluid output port is at a proximal portion of the elongate member.

36. (Original) The device of claim 11, wherein the fluid output port is at a proximal portion of the elongate member.

37. (Currently Amended) The device of claim ~~14~~11, wherein the fluid output port is at a proximal portion of the elongate member.

38. (New) A method for thermal ablation of a target volume comprising:

perforating and penetrating a living body using a guide element to establish a tract through the body to the target volume;

sliding an electrode along and over the guide element directed into the body to position the electrode near the target volume, the electrode including an elongate member defining a longitudinal passage dimensioned to pass along the guide wire, a conductive surface at a distal portion of the elongate member, and an electrical connection between the conductive surface and a proximal portion of the elongate member;

connecting the electrical connection to a high frequency generator;

supplying high frequency energy from the generator through the electrode to the target volume to thermally ablate the target volume; and

introducing a chemotherapeutic agent through the guide element prior to or while supplying high frequency energy.